

AMENDMENTS TO THE CLAIMS

1. (Original) A polymer dispersion comprising
 - i) polymer particles dispersed in an aqueous medium and composed of units of ethylenically unsaturated monomers,
 - ii) a water-soluble polymeric polyelectrolyte which along a polymeric backbone carries a large number of ionic groups of uniform charge character or groups which can be ionized to such groups, and
 - iii) 2.5 to 15% by weight, based on the total weight of the polymer dispersion, of an ionic surfactant which carries an ionic group having a charge character opposite to that of the polymeric polyelectrolyte, or a group which can be ionized to such a group.
2. (Original) A polymer dispersion as claimed in claim 1, wherein the polyelectrolyte and the ionic surfactant are in a weight ratio, based on solids, of from 20:1 to 1:1.
3. (Previously Presented) polymer dispersion as claimed in claim 1, which additionally comprises a nonionic surfactant.
4. (Previously Presented) A polymer dispersion as claimed in claim 1, wherein the polyelectrolyte is composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of ethylenically unsaturated C₃-C₈ monocarboxylic acids; C₄-C₈ dicarboxylic acids or their monoesters; sulfonic acids; sulfuric monoesters or phosphonic acids and/or salts thereof, and the ionic surfactant is a quaternary ammonium salt having at least one hydrocarbon chain of at least 6 carbon atoms.
5. (Previously Presented) A polymer dispersion as claimed in claim 1, wherein the polyelectrolyte is composed of units of ethylenically unsaturated monomers and 20-

100% by weight, based on the total monomer units, of units of ethylenically unsaturated sulfonic acids, sulfuric monoesters or phosphonic acids and/or salts thereof and the ionic surfactant is an amine having at least one hydrocarbon chain of at least 6 carbon atoms, or a protonated form thereof.

6. (Previously Presented) A polymer dispersion as claimed in claim 1, wherein the polymeric polyelectrolyte is a cationic polymeric polyelectrolyte, which is composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of monoethylenically unsaturated monomers which carry a quaternary ammonium group or a protonizable amino group and the ionic surfactant is an anionic surfactant which is selected from the group consisting of alkyl sulfates, sulfuric monoesters with ethoxylated alkyl alcohols, sulfuric monoesters with ethoxylated C₄-C₉ alkylphenols, alkylsulfonates, alkenylsulfonates, alkylarylsulfonates, alkylglyceryl ether sulfonates, alkyl phosphates, dialkyl phosphates, alkylaryl phosphates, alkylphosphonates, alkenylphosphonates, alkylarylphosphonates, monoalkyl esters of sulfosuccinic acid, dialkyl esters of sulfosuccinic acid, singly ring-sulfonated monoalkylbiphenyl ethers, multiply ring-sulfonated monoalkylbiphenyl ethers, methylcarboxylates of ethoxylated alkyl alcohols, and C₆-C₂₂ carboxylic acids.

7. (Previously Presented) A polymer dispersion as claimed in claim 1, wherein the polyelectrolyte has a degree of polymerization of less than 2000.

8. (Previously Presented) A polymer dispersion as claimed in claim 1, wherein the polymer particles contain in copolymerized form:

- 60-100% by weight, based on the total monomer units, of C₁-C₁₂ alkyl (meth)acrylates, vinylaromatic compounds, or vinyl esters of C₂-C₁₂ monocarboxylic acids, and

- 0-40% by weight of (meth)acrylic acid, (meth)acrylonitrile, C₂-C₈ hydroxy (meth)acrylate, (meth)acrylamide, or glycidyl (meth)acrylate.

9. (Previously Presented) A polymer dispersion as claimed in claim 1, wherein the polyelectrolyte and the polymer particles are in a weight ratio, based on solids, of from 5:1 to 1:10.

10. (Previously Presented) A process for preparing a polymer dispersion as claimed in claim 1, which comprises free-radically polymerizing at least one ethylenically unsaturated monomer in an aqueous medium in the presence of a combination of a water-soluble polymeric polyelectrolyte which along a polymeric backbone carries a large number of ionic groups of uniform charge character or groups which can be ionized to such groups, and an ionic surfactant which carries an ionic group having a charge character opposite to that of the polymeric polyelectrolyte, or a group which can be ionized to such a group.

11. (Cancelled)

12. (Previously Presented) A method of producing two- or three-dimensional structures, which comprises contacting a particulate or fibriform substrate with a polymer dispersion as claimed in claim 1 and subjecting the substrate so treated to a curing step.

13. (Previously Presented) A method of producing two- or three-dimensional structures, which comprises contacting a polymer dispersion as claimed in claim 1, a particulate or fibriform substrate and an aqueous phase with one another, in the course of which the polymer particles become coagulated, removing any excess aqueous phase, and subjecting the mixture of substrate and coagulated polymer particles to a curing step.

14. (Previously Presented) A polymer dispersion as claimed in claim 6, wherein the ionic surfactant is selected from the group consisting of ethoxylated alkyl sulfates,

ethoxylated alkylsulfonates, ethoxylated alkylaryl sulfates, and ethoxylated alkylaryl sulfonates.

15. (Previously Presented) A polymer dispersion comprising

- i) polymer particles dispersed in an aqueous medium and composed of units of ethylenically unsaturated monomers,
- ii) a water-soluble polymeric polyelectrolyte which along a polymeric backbone carries a large number of ionic groups of uniform charge character or groups which can be ionized to such groups, and
- iii) an ionic surfactant which carries an ionic group having a charge character opposite to that of the polymeric polyelectrolyte, or a group which can be ionized to such a group,

wherein the polyelectrolyte is selected from the group consisting of

- a) a polyelectrolyte composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of ethylenically unsaturated C₃-C₈ monocarboxylic acids; C₄-C₈ dicarboxylic acids or their monoesters; sulfonic acids; sulfuric monoesters or phosphonic acids and/or salts thereof, and the ionic surfactant is a quaternary ammonium salt having at least one hydrocarbon chain of at least 6 carbon atoms;
- b) a polyelectrolyte composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of ethylenically unsaturated sulfonic acids, sulfuric monoesters or phosphonic acids and/or salts thereof and the ionic surfactant is an amine having at least one hydrocarbon chain of at least 6 carbon atoms, or a protonated form thereof; and

c) a cationic polymeric polyelectrolyte composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of monoethylenically unsaturated monomers which carry a quaternary ammonium group or a protonizable amino group and the ionic surfactant is an anionic surfactant which is selected from the group consisting of alkyl sulfates, sulfuric monoesters with ethoxylated alkyl alcohols, sulfuric monoesters with ethoxylated C₄-C₉ alkylphenols, alkylsulfonates, alkenylsulfonates, alkylarylsulfonates, alkylglyceryl ether sulfonates, alkyl phosphates, dialkyl phosphates, alkylaryl phosphates, alkylphosphonates, alkenylphosphonates, alkylarylphosphonates, monoalkyl esters of sulfosuccinic acid, dialkyl esters of sulfosuccinic acid, singly ring-sulfonated monoalkylbiphenyl ethers, multiply ring-sulfonated monoalkylbiphenyl ethers, methylcarboxylates of ethoxylated alkyl alcohols, and C₆-C₂₂ carboxylic acids.

16. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polyelectrolyte and the ionic surfactant are in a weight ratio, based on solids, of from 20:1 to 1:1.

17. (Previously Presented) polymer dispersion as claimed in claim 15, which additionally comprises a nonionic surfactant.

18. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polyelectrolyte is composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of ethylenically unsaturated C₃-C₈ monocarboxylic acids; C₄-C₈ dicarboxylic acids or their monoesters; sulfonic acids; sulfuric monoesters or phosphonic acids and/or salts thereof, and the

ionic surfactant is a quaternary ammonium salt having at least one hydrocarbon chain of at least 6 carbon atoms.

19. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polyelectrolyte is composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of ethylenically unsaturated sulfonic acids, sulfuric monoesters or phosphonic acids and/or salts thereof and the ionic surfactant is an amine having at least one hydrocarbon chain of at least 6 carbon atoms, or a protonated form thereof.
20. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polyelectrolyte is a cationic polymeric polyelectrolyte, which is composed of units of ethylenically unsaturated monomers and 20-100% by weight, based on the total monomer units, of units of monoethylenically unsaturated monomers which carry a quaternary ammonium group or a protonizable amino group and the ionic surfactant is an anionic surfactant which is selected from the group consisting of alkyl sulfates, sulfuric monoesters with ethoxylated alkyl alcohols, sulfuric monoesters with ethoxylated C₄-C₉ alkylphenols, alkylsulfonates, alkenylsulfonates, alkylarylsulfonates, alkylglyceryl ether sulfonates, alkyl phosphates, dialkyl phosphates, alkylaryl phosphates, alkylphosphonates, alkenylphosphonates, alkylarylphosphonates, monoalkyl esters of sulfosuccinic acid, dialkyl esters of sulfosuccinic acid, singly ring-sulfonated monoalkylbiphenyl ethers, multiply ring-sulfonated monoalkylbiphenyl ethers, methylcarboxylates of ethoxylated alkyl alcohols, and C₆-C₂₂ carboxylic acids.
21. (Previously Presented) A polymer dispersion as claimed in claim 20, wherein the ionic surfactant is selected from the group consisting of ethoxylated alkyl sulfates,

ethoxylated alkylsulfonates, ethoxylated alkylaryl sulfates, and ethoxylated alkylaryl sulfonates.

22. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polyelectrolyte has a degree of polymerization of less than 2000.

23. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polymer particles contain in copolymerized form:

- 60-100% by weight, based on the total monomer units, of C₁-C₁₂ alkyl (meth)acrylates, vinylaromatic compounds, or vinyl esters of C₂-C₁₂ monocarboxylic acids, and
- 0-40% by weight of (meth)acrylic acid, (meth)acrylonitrile, C₂-C₈ hydroxy (meth)acrylate, (meth)acrylamide, or glycidyl (meth)acrylate.

24. (Previously Presented) A polymer dispersion as claimed in claim 15, wherein the polyelectrolyte and the polymer particles are in a weight ratio, based on solids, of from 5:1 to 1:10.

25. (Previously Presented) A process for preparing a polymer dispersion as claimed in claim 15, which comprises free-radically polymerizing at least one ethylenically unsaturated monomer in an aqueous medium in the presence of a combination of a water-soluble polymeric polyelectrolyte which along a polymeric backbone carries a large number of ionic groups of uniform charge character or groups which can be ionized to such groups, and an ionic surfactant which carries an ionic group having a charge character opposite to that of the polymeric polyelectrolyte, or a group which can be ionized to such a group.

26. (Previously Presented) A method of producing two- or three-dimensional structures, which comprises contacting a particulate or fibriform substrate with a polymer

dispersion as claimed in claim 15 and subjecting the substrate so treated to a curing step.

27. (Previously Presented) A method of producing two- or three-dimensional structures, which comprises contacting a polymer dispersion as claimed in claim 15, a particulate or fibriform substrate and an aqueous phase with one another, in the course of which the polymer particles become coagulated, removing any excess aqueous phase, and subjecting the mixture of substrate and coagulated polymer particles to a curing step.

SUPPORT FOR THE AMENDMENTS

Claim 1 has been amended.

The amendment of Claim 1 is supported by the specification as originally filed, for example at page 11, lines 1 to 4.

No new matter has been added by the present amendment.